The AK9223 is a 2ch delta-sigma modulator that achieves 86dB dynamic range. It operates on a 5V power supply. The AK9223 is available in a space-saving 24-pin TSSOP package.

### Features

- **Resolution**: 16-bit
- **Linearity**: 13-bit
- **Input Voltage Range**: ±2.3V
- **High Accurate Reference Voltage**: ±1% (2.5V ±0.025V), ±20ppm/°C (typ.)
- **Gain Error**: 0.5% (max.)
- **2ch ΔΣ Modulator**
- **2ch Input Reference**
- **20MHz OSC**
- **Selectable External Clocks**
- **Power Consumption**: 67.5 mW (SEL=1, AVDD = DVDD = 5V)
- **Power Supply**: AVDD = 4.5 to 5.5V, DVDD = 2.7 to 5.5V
- **Ta = -40 to 105°C**
- **Small Package**: 24-pin TSSOP (0.65mm pitch)

![Block Diagram of AK9223](image-url)
# Pin Configurations

![Diagram of pin configurations]

- AVDD
- VSS1
- REFI0
- TEST0
- AIN0+
- AIN0-
- AIN1-
- AIN1+
- TEST1
- REFI1
- VSS2
- AVDD

Diagramp shows the top view of the pin connections.
Package

- **Outline Dimensions**

24-pin TSSOP (Unit: mm)

![Diagram of 24-pin TSSOP package dimensions](image)

- Dimension Details:
  - Width: 7.8 ± 0.1 mm
  - Length: 13 mm
  - Height: 4.4 ± 0.1 mm
  - Lead Spacing: 0.1 mm
  - Lead Diameter: 0.15 ± 0.05 mm
  - Lead Diameter at 0°: 0.65 mm
  - Lead Diameter at 8°: 0.25 ± 0.05 mm
  - Lead Diameter at 10°: 0.9 ± 0.05 mm
  - Lead Diameter at 11°: 1.10 MAX

- **Detail A**
  - Width: 0.1 mm
  - Height: 0.05 mm
  - Lead Diameter: 0.10 ± 0.05 mm
Thank you for your access to AKM product information.

More detail product information is available, please contact our sales office or authorized distributors.

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